LISTING OF THE CLAIMS

1. (Previously Presented) A method for depositing a quantity of a fluid containing a protein reagent of interest onto a surface of a substrate, said method comprising:

(a) front loading said quantity of fluid into a thermal inkjet head comprising an orifice and a firing chamber, wherein said front loading comprises contacting said orifice with said fluid in a manner so that said fluid flows through said orifice into said firing chamber, wherein said quantity of fluid is no more than about 5 μl;

(b) positioning said loaded thermal inkjet head in opposing relation to said surface; and

(c) actuating said thermal inkjet head to deposit said quantity of fluid onto said surface in a manner that maintains said reagent's functionality.

2. (Original) The method according to Claim 1, wherein said method further comprises applying back pressure to said head during said contacting step.

3. (Canceled)

4. (Previously Presented) The method according to Claim 1, wherein no more than about 2 μl of fluid is loaded into said head during said loading step.

5. (Original) The method according to Claim 1, wherein said protein of interest is present in said fluid at a concentration that ranges from about 5 to 1000 μg/ml.

6. (Original) The method according to Claim 1, wherein said method further comprises washing said head following said actuating step (c).

7. (Original) The method according to Claim 1, wherein said protein of interest is a member of a specific binding pair.

8. (Original) The method according to Claim 1, wherein said protein of interest is an enzyme.

9. (Original) The method according to Claim 1, wherein said surface is a surface of a planar substrate.

10. (Original) The method according to Claim 1, wherein said surface is a surface of a reagent chamber.

11. (Canceled)

12. (Previously Presented) A method for depositing a quantity of fluid containing a protein reagent binding pair member onto a substrate surface, said method comprising:

(a) front loading less than about 5 μl of said fluid into a thermal inkjet head comprising an orifice and a firing chamber, wherein said front loading comprises contacting said orifice with said fluid and applying back pressure to said head during said contacting in a manner so that said fluid flows through said orifice into said firing chamber;

(b) positioning said loaded thermal inkjet head loaded with said fluid in opposing relation to said surface;

(c) actuating said thermal inkjet head to deposit said quantity of fluid onto said surface in a manner that maintains said reagent's functionality; and

(d) washing said head.

13. (Original) The method according to Claim 12, wherein no more than about 2 μl of fluid is loaded into said head during said loading step.

14. (Original) The method according to Claim 12, wherein said protein binding pair member is present in said fluid at a concentration ranging from about 5 to 1000 μg/ml.

15. (Original) The method according to Claim 12, wherein said surface is a surface of a planar support.

16. (Original) The method according to Claim 12, wherein said surface is a surface of a reagent chamber.

17. (Previously Presented) A method for depositing a quantity of fluid containing an enzyme reagent onto a surface of a substrate, said method comprising:

(a) front loading less than about 5 μl of said fluid into a thermal inkjet head comprising an orifice and a firing chamber, wherein said front loading comprises contacting said orifice with said fluid and applying back pressure to said head during said contacting in a manner so that said fluid flows through said orifice into said firing chamber;

(b) positioning said loaded thermal inkjet head loaded with said fluid in opposing relation to said surface;

(c) actuating said thermal inkjet head to deposit said quantity of fluid onto said surface in a manner that maintains said reagent's functionality; and

(d) washing said head.

18. (Original) The method according to Claim 17, wherein no more than about 2 μl of fluid is loaded into said head during said loading step.

19. (Original) The method according to Claim 17, wherein said enzyme is present in said fluid at a concentration ranging from about 5 to 1000 μg/ml.

20. (Original) The method according to Claim 17, wherein said surface is a surface of a planar substrate.

21. (Previously Presented) The method according to Claim 17, wherein said surface is a surface of a reagent chamber.

22. (Previously Presented) A method for depositing a quantity of a fluid containing a protein reagent of interest onto a surface of a substrate, said method comprising:

(a) front loading said fluid into a thermal inkjet head comprising an orifice and a firing chamber, wherein said protein of interest is present in said fluid at a concentration that ranges from about 5 to 1000 μg/ml and said front loading comprises contacting said orifice with said fluid and applying back pressure to said head during said contacting in a manner so that said fluid flows through said orifice into said firing chamber;

(b) positioning said loaded thermal inkjet head in opposing relation to said surface; and

(c) actuating said thermal inkjet head to deposit said quantity of fluid onto said surface in a manner that maintains said reagent's functionality.

23. (Original) The method according to Claim 22, wherein said method further comprises washing said head following said actuating step (c).

24. (Original) The method according to Claim 22, wherein said protein of interest is a member of a specific binding pair.

25. (Original) The method according to Claim 22, wherein said protein of interest is an enzyme.

26. (Original) The method according to Claim 22, wherein said surface is a surface of a planar substrate.

27. (Original) The method according to Claim 22, wherein said surface is a surface of a reagent chamber.

28. (Previously Presented) The method according to Claim 22, wherein said deposited quantity does not exceed about 200 picolitres.

Claims 29 to 34 (Canceled).

35. (Previously Presented) A method according to Claim 2, wherein said back pressure comprises negative pressure.

36. (Previously Presented) The method according to Claim 1, wherein said fluid consists essentially of said protein reagent.

37. (Previously Presented) The method according to Claim 12, wherein said fluid consists essentially of said protein reagent binding pair member.

38. (Previously Presented) The method according to Claim 17, wherein said fluid consists essentially of said enzyme reagent.

39. (Previously Presented) The method according to Claim 22, wherein said fluid consists essentially of said protein reagent.